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EXAMINER

SOROUGH, LAYLA

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/507,501	<b>Applicant(s)</b> KURODA, AKIHIRO	
	<b>Examiner</b> LAYLA SOROUGH	<b>Art Unit</b> 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

The Office Action is in response to the Applicant's reply filed October 13, 2008 to the Office action mailed on June 10, 2008.

Applicant's arguments over the 35 U.S.C. 103 (a) rejection of claims 1, 3-7, 9-10, 12, 14-16, and 18-20 over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented) in view of Yonekura et al. (US Pat. No. 4,892,726– previously presented), Roidl (EP 0523 911 A2– previously presented) and Wada et al. (US Pat No. 6,534,044– previously presented) is persuasive. Therefore, the rejection of record is herewith withdrawn.

Applicant's arguments over the 35 U.S.C. 103 (a) rejection of claims 2 and 17 over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented), Yonekura et al. (US Pat. No. 4,892,726– previously presented), Wada et al. (US Pat No. 6,534,044– previously presented) and Roidl (EP 0523 911 A2) as applied to claims 1, 3-7, 9-10, 12, 14-15, 16, and 18-20 as above and further in view of Fukuchi (English translation, JP 01211518 A)) is persuasive. Therefore, the rejection of record is herewith withdrawn.

Applicant's arguments over the 35 U.S.C. 103 (a) rejection of claims 11 and 13 over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented), Yonekura et al. (US Pat. No. 4,892,726– previously presented), Wada et al. (US Pat No. 6,534,044– previously presented) and Roidl (EP 0523 911 A2) as applied to claims 1, 3-7, 9-10, 12, 14-15, 16, and 18-20 as above, and further in view

of Hayashi et al. (English translation, JP 2000327948A) is persuasive. Therefore, the rejection of record is herewith withdrawn.

The following modified 35 U.S.C. 103(a) rejection is now made:

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-7, 9-10, 12, 14-16, and 18-20 are rejected under 35 U.S.C. 103(a) as being obvious over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented) in view of Yonekura et al. (US Pat. No. 4,892,726– previously presented), Oka et al. (JP 2000-309505), Fluoropolymers (Gareth Hougham Published by Springer, 1999) and Wada et al. (US Pat No. 6,534,044– previously presented).

Ichinohe et al. teaches in Example 11, a dimethylpolysiloxane in 24 weight % at 6 mm<sup>2</sup>/sec at 25 C (non-volatile oil agents of instant claims 1a and 5), a trimethylsiloxysilicate in 1 weight % (oil soluble silicone), 1,3-butylene glycol in 2.0 weight of the composition % (a volatile solvent and a lower alcohol of instant claims 1d and 9; a polyhydric alcohol) or in 0.1 to 98 % by weight of the total cosmetic material, a polyether modified silicon (recited in claim 3), and purified water (recited in claim 4). Pigments are also taught as components in the composition (recited in claim 1e in part). Further, Ichinohe et al. teaches examples of organic powders used in the composition

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include polymethylsilsesquioxane (water-repellent powders, of instant claims 1b and 6).

The amount of the said component in the cosmetic composition ranges from 0.1- 99-weight % to total cosmetic material (page 4, left column, lines 1-15 from top and lines 52-63 from top). Additionally, examples of inorganic powders such as titanium oxide, zinc oxide, and cerium oxide are taught as components of the cosmetic composition.

The inorganic and organic powders are formed into complexes or treated with general oils, silicone oils, etc. (page 4, left column lines 1-10 from bottom of page)). Ichinohe et al. teaches that any powder can be mixed into the composition regardless of shape, size, and structure as long as they have hitherto been used in conventional cosmetic materials. The amount of the said components in the cosmetic composition ranges from 0.1- 99 weight % to total cosmetic material (page 3, right column, last 3 paragraphs in entirety and page 4, left column, last paragraph in entirety) (water-repellent surface treated pigment, of instant claims 1e (in part) and 10).

Although, the reference does teach the use of polymethylsilsesquioxane as a component and fluorine-modified silicones, for example fluorine-contained unctuous agent which can also be mixed include perfluoropolyether, perfluoro-decaline, perfluorooctaine and the like in the cosmetic composition, and the use of pigments in the cosmetic compositions; the reference fails to selectively use polymethylsilsesquioxane, a perfluoroalky group-containing polyalkylsiloxysilicate, and surface treated pigments as components of the composition of example 11.

Yonekura et al. teaches the use of polymethylsilsesquioxane powders in 3-5 parts as a component of makeup or cosmetic compositions. Additionally the reference

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teaches the polymethylsilsesquioxane powders and other cosmetic powdery raw material in cosmetic binder oils. Cosmetic powder raw material include pigments such as zinc, silica, and titanium. Yonekura et al. teaches that the composition may include water, surface active agents, perfume, thickeners, and antiseptics. Yonekura et al. teaches that the polymethylsilsesquioxane powders have “excellent effects of natural color and smoothness upon application” to the skin (column 1 lines 60-65), provide “a moisturized feeling,” and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10).

Oka et al teaches hydrophobic agents such as fluorine-modified trimethylsiloxysilicate treated powders in 0.1 to 20 or preferably in 0.1 to 7 of a hydrophobic powder and aqueous ingredient. Additionally, Hougham teaches that fluorination of polymers provides for a wide range of properties for example, low permeability to nonpolar liquids, improved permaselectivity, excellent wettability and adhesion, low friction coefficient and chemical inertness.

Wada et al. teaches a cosmetic material comprising silica coated metal oxide particle further surface treated with a hydrophobizing agent. The metal oxide particles include titanium oxide, zinc oxide, cerium oxide, zirconium oxide, and iron oxide. The surface coated metal oxide particles have a primary particle size of 5-120 nm. The metal oxide particles coated with silica (column 3 lines 39-47) are further coated with a hydrophobizing agent (column 49, claim 1). The amount of the silica-coated metal oxide particles and surface-hydrophobicized silica-coated metal oxide particles in a cosmetic

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material of the invention is preferably in the range of 1-50 wt % and more preferably 5-30 wt % with respect to the cosmetic material.

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate the silicon resin polymethylsilsesquioxane, fluorine fluorine-modified trimethylsiloxysilicate treated powders, and surface-hydrophobicized silica-coated metal oxide particle into the cosmetic composition because Ichinohe et al. teaches the use of polymethylsilsesquioxane, fluorine-modified silicones for example fluorine-contained unctuous agent which can also be mixed include perfluoropolyether, perfluoro-decaline, perfluorooctaine and the like in the cosmetic, and metal oxides in the cosmetic; Yonekura et al. teaches the use of polymethylsilsesquioxane in a cosmetic; and Oka et al teaches fluorine-modified trimethylsiloxysilicate treated powders. The motivation to incorporate the silicon resin polymethylsilsesquioxane, fluorine-modified trimethylsiloxysilicate treated powders, in the cosmetic composition is because the references teach the polymethylsilsesquioxane, fluorine-modified silicone, in a cosmetic composition and more specifically, because (1) Yonekura et al. teaches that the polymethylsilsesquioxane powders have "excellent effects of natural color and smoothness upon application" to the skin (column 1 lines 60-65), provide "a moisturized feeling," and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10); (2) Hougham teaches that fluorination of polymers provides for a wide range of properties for example, low permeability to nonpolar liquids, improved permaselectivity, excellent wettability and adhesion, low friction coefficient and chemical inertness; and (3) Wada et al. teaches

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the surface-hydrophobicized silica-coated metal oxide particle have (1) excellent properties such as suppression of photocatalytic activity (2) “an excellent feel during use,” (3) “improvement in the particle fineness and dispersion properties,” “(4) low phototoxicity” (5) excellent storage stability (6) satisfactory surface properties (moistness, smoothness) when added to cosmetics and (7) high contouring properties (column 1 lines 30-36, column 2 lines 40-45, 63-68, and column 9 lines 20-25).

Therefore, a skilled artisan would have reasonable expectation of successfully producing a similar composition with “excellent effects of natural color and smoothness upon application” to the skin (column 1 lines 60-65), provide “a moisturized feeling,” and more enhance the functions of pigment powders used as cosmetic components in combination therewith (column 2, lines 1-10); provides for a wide range of properties for example, low permeability to nonpolar liquids , improved permaselectivity, excellent wettability and adhesion, low friction coefficient and chemical inertness; and that has (1) excellent properties such as suppression of photocatalytic activity (2) “an excellent feel during use,” (3) “improvement in the particle fineness and dispersion properties,” “low phototoxicity” (4) excellent storage stability and (5) high contouring properties.

Claims 7 and 12 are product by process claims. It is well settled in patent law that product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. See MPEP § 2123. The court in In re Thorpe held, “even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a



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product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” See 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). In this case, the method of making the composition as claimed does not render structural limitations to the claimed composition. Thus, the processes are not given patentable weight. In claim 7, the formulation of the water-repellent resin powder “in a form of being kneaded with an oil agent, finely crushed by a crusher, or dispersed in water” is not given patentable weight. Also, in claim 12 the formulation “in a mechanically ground form in advance or at the time of production of the cosmetic product” is not given weight.

Ichinohe et al. do not expressively teach the term “water-runability,” as recited in claim 14. However, the reference teaches that the composition has a “strong repellency to sweat and water(abstract).” This is viewed equivalent or similar to the recited property of the cosmetic composition, as recited in claim 14. Also, the method of imparting water-runability on the skin or hair, as recited in claim 16, 18-20, is viewed obvious because the reference teaches the moisture resistant property and its use on the skin or hair ([0016]). In the examiners view, the “water-runability” property of the claimed cosmetic composition and its use are equivalent to that of the reference composition. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use the cosmetic composition taught in the prior art with the expectation of successfully producing a similar cosmetic composition with the resulting water-runability and usability properties.

Ichinohe et al. does not specifically teach the coated portion having “three or more of protruding portions having a height of 0.2 um or more per 10 um-length,” as recited in claim 15. However, Ichinohe et al. teaches the composition as claimed and therefore the properties of such a claimed composition are viewed obvious. The cosmetic composition requires the same components and the physical properties of the cosmetic composition will therefore be identical. A physical property is inseparable from its composition and because prior art teaches the cosmetic composition, then the properties are also taught by the prior art (In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990) See MPEP 2112.01).

Claims 2 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented), Yonekura et al. (US Pat. No. 4,892,726– previously presented), Oka et al. (JP 2000-309505), Fluoropolymers (Gareth Hougham Published by Springer, 1999) and Wada et al. (US Pat No. 6,534,044– previously presented), as applied to claims 1, 3-7, 9-10, 12, 14-15, 16, and 18-20 as above and further in view of Fukuchi (English translation, JP 01211518 A).

Ichinohe et al. does not teach the use of a highly polymerized silicone but does teach the use of a one-end hydrogensiloxane (see page 6 right column text and structural formula) as a component in the cosmetic composition.

Fukuchi teaches the use of a polysilicone of the general Formula I in a hair cosmetic composition. Formula I comprises R1 representing a methyl group or phenyl

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group and R2 represents a methyl group or hydroxyl group (n represents integer of 3,000-20,000) (see page 1, right paragraph, structural formula I). The reference teaches that the ingredients provide “luster and silkiness onto the hair,” “excellent conditioning effects,” and sustains these effects over “relatively long periods” (see English translation page 2, bullet 3 lines 1-4).

Both Ichinohe et al. and Fukuchi teach compositions directed to hair compositions. It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the composition of Ichinohe et al. by adding to the composition the polysilicone of Formula I in Fukuchi. The modification would have been motivated by the teaching in Fukuchi that the polysilicone of Formula I will provide a sustained luster, silkiness, and excellent conditioning effects on the hair. The skilled artisan would have had a reasonable expectation of successfully producing a stable and effective hair cosmetic composition with good moisture resistancy and conditioning effects, because both Ichinohe et al. and Fukuchi teach similar formulations (e.g., hair, creams, emulsions comprising volatile oils, etc.).

Also, the method of imparting water-runability on the skin or hair, as recited in claim 17, is viewed obvious because the reference teaches the moisture resistant property and its use on the skin or hair ([0016]). In the examiners view, the “water-runability” property of the claimed cosmetic composition and its use are equivalent to that of the reference composition. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to use the cosmetic

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composition taught in the prior art with the expectation of successfully producing a similar cosmetic composition with the resulting water-runability and usability properties.

Claims 11 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinohe et al. WO 02/03928 (translation: US Publication no. 20030082218A1 – previously presented), Yonekura et al. (US Pat. No. 4,892,726– previously presented), Oka et al. (JP 2000-309505), Fluoropolymers (Gareth Hougham Published by Springer, 1999) and Wada et al. (US Pat No. 6,534,044– previously presented) as applied to claims 1, 3-7, 9-10, 12, 14-15, 16, and 18-20 as above, and further in view of Hayashi et al. (English translation, JP 2000327948A).

Ichinohe et al. does not teach the water-repellent surface treated pigment coated with silica, alumina, or zirconia, and also does not teach the water-repellent surface treated pigment further subjected to water repellent surface treatment.

However, Hayashi et al. does teach the use of a metal compound powder having a metal compound particle on the surface of the metallic oxide or hydroxide particle in a cosmetic composition (see English translation [0002]). Further, Hayashi et al. teaches the powder coated with organosilane (see page 4/55, heading [Problem to Be Solved], lines 1-13). Also, the composition is taught to have “outstanding hydrophobic property” (see [0001]).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the Ichinohe composition by incorporating the water repellent surface treated pigment component as motivated by Hayashi et al., because

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the latter teaches that the coated metal compounds have good hydrophobic properties and are used in cosmetics. Therefore, the skilled artisan would have had a reasonable expectation that the composition would yield a strong water repellency property.

### **Response to Arguments**

Applicants' argument regarding resins and siloxysilicates is persuasive but are moot in view of the new ground(s) of rejection. More specifically, the argument that the perfluoroalkyl group containing polyalkylsiloxysilicate is a resin and not a liquid is persuasive.

The Declaration and arguments to unexpected results is moot since applicants arguments against the rejections of record are persuasive. However, the Examiner will address the Declaration in view of the new ground(s) of rejection. The Examiner states that the combined references teach the specified components in the specified amounts. For example, Ichinohe et al. teaches in Example 11, a dimethylpolysiloxane in 24 weight % at 6 mm<sup>2</sup>/sec at 25 C (non-volatile oil agents of instant claims 1a and 5). Further, Ichinohe et al. teaches examples of organic powders used in the composition include polymethylsilsesquioxane (water-repellent powders, of instant claims 1b and 6). The amount of the said component in the cosmetic composition ranges from 0.1- 99-weight % to total cosmetic material (page 4, left column, lines 1-15 from top and lines 52-63 from top). Additionally, Yonekura et al. teaches the use of polymethylsilsesquioxane powders in 3-5 parts as a component of makeup or cosmetic compositions. Oka et al teaches hydrophobic agents such as fluorine-modified trimethylsiloxysilicate treated powders in 0.1 to 20 or preferably in 0.1 to 7 of a hydrophobic powder and aqueous

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ingredient. Lastly, Wada teaches the amount of the silica-coated metal oxide particles and surface-hydrophobicized silica-coated metal oxide particles in a cosmetic material of the invention is preferably in the range of 1-50 wt % and more preferably 5-30 wt % with respect to the cosmetic material. Hence, applicants argument that the amounts provide unexpected properties is not persuasive considering the references relied upon teach the same amounts claimed.

Applicant argues that Comparative Example C provides unexpected results for the incorporation of a perfluoroalkyl group containing polyalkylsiloxysilicate over trimethylsiloxysilicate. The Examiner points to the new rejection above where Hougham teaches that fluorination of polymers provides for a wide range of properties for example, low permeability to nonpolar liquids , improved permaselectivity, excellent wettability and adhesion, low friction coefficient and chemical inertness.

### *Conclusion*

No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Layla Soroush whose telephone number is (571)272-5008. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1617